

AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Currently Amended) An anastomotic apparatus for placing an inside edge surface of an incision in a first vessel in healing contact with an inside edge surface of an incision in a second vessel to establish flow between the vessels, said apparatus comprising:

a sinuous, stiffening framework having a plurality of malleable sections formed of a deformable material which causes the framework to remain in a second configuration after being deformed from a first configuration, each said malleable section comprising a curved apex; and

means for attaching said stiffening framework to the vessels to hold the edge surfaces of the incisions in contact while permitting the framework to be shaped to define a flow path between the vessels.

Claims 3 - 10. (Canceled)

11. (Previously Presented) The anastomotic apparatus of claim 2, wherein said means for attaching are configured to orient the edge surfaces of the first and second vessels to align the edge surfaces to join the first and second vessels in side-to-side contact with each other.

Claims 12 - 16. (Canceled)

17. (Previously Presented) The anastomotic apparatus of claim 2, wherein said means for attaching are configured to orient the edge surfaces of the first and second vessels to align the edge surfaces to join the first and second vessels in end-to-side contact with each other.

18. (Canceled)

19. (Currently Amended) The anastomotic apparatus of claim 2, further comprising a tool having a head configured to be inserted into one of the vessels to attach said means for attaching to the vessel, said head located at a distal end portion of said tool, said head extending transversely to a

longitudinal axis of said tool and having a bypass channel defined therethrough and extending transversely to the longitudinal axis, for maintaining blood flow through the vessel when said head is inserted into the vessel.

Claims 20 - 42. (Canceled)

43. (Currently Amended) A method of performing an anastomosis comprising:

A) defining an incision in a first vessel;

B) defining an incision in a second vessel;

C) fastening a mounting structure on the first vessel in surrounding relationship to the incision in the first vessel;

D) fastening the mounting structure to the second vessel in surrounding relationship to the incision therein to bring peripheral surfaces of the incisions in the first and second vessels into healing contact while providing an open flow path between the vessels through the incisions; and

E) shaping, by bending the mounting structure to define a desired flow area between the first and second vessels.

Claims 44 - 70. (Canceled)

71. (Previously Presented) The anastomotic apparatus of claim 2, further comprising a hemostatic medium positioned to contact the outside surfaces of the first and second vessels as the edge surfaces of the incisions are brought into contact.

72. (Previously Presented) The anastomotic apparatus of claim 71, wherein said hemostatic medium comprises a cuff.

73. (Previously Presented) The anastomotic apparatus of claim 72, wherein said cuff comprises a woven synthetic cuff.

74. (Previously Presented) The anastomotic apparatus of claim 71, wherein said hemostatic medium comprises an oval-shaped flexible body.

75. (Previously Presented) The anastomotic apparatus of claim 19, wherein said head comprises an anvil.

76. (Previously Presented) The anastomotic apparatus of claim 75, wherein said anvil is larger than the incision in the vessel into which it is inserted, said anvil configured to be button-holed into the vessel through the incision.

77. (Previously Presented) The anastomotic apparatus of claim 2, wherein said stiffening framework comprises a single cuff and said means for attaching comprise vessel attaching elements extending from said single cuff and adapted to attach to the first and second vessels.

78. (Previously Presented) The anastomotic apparatus of claim 77, further comprising bridging members interconnecting first and second portions of said single cuff, said bridging members adapted to be manipulated to draw said first and second portions together to draw the edge surfaces of the incisions into contact.

79. (Previously Presented) The anastomotic apparatus of claim 2, wherein said stiffening framework comprises first and second cuffs, said first cuff configured to be attached to the first vessel and said second cuff configured to be attached to the second vessel.

80. (Previously Presented) The anastomotic apparatus of claim 79, wherein said first and second cuffs comprise mateable male and female connecting members, respectively, said male and female connectors adapted to mate to couple said cuffs together.

81. (Previously Presented) The anastomotic apparatus of claim 80, wherein said male and female members form a friction fit with one another.

82. (Previously Presented) The anastomotic apparatus of claim 79, further comprising rivets or staples for mechanically joining said cuffs together.

83. (Previously Presented) The anastomotic apparatus of claim 2, wherein said stiffening framework is sinuous in shape and comprises a plurality of malleable sections.

84. (Previously Presented) The anastomotic apparatus of claim 2, wherein said means for attaching comprise tissue retention pins.

85. (Previously Presented) The anastomotic apparatus of claim 2, further comprising docking extensions extending from said stiffening framework, said docking extensions configured to be manipulated to deform said stiffening framework into said second configuration.

86. (Previously Presented) The anastomotic apparatus of claim 78, wherein said bridging members comprise malleable wire.

87. (Currently Amended) An anastomotic apparatus for placing an inside edge surface of an incision in a first vessel in healing contact with an inside edge surface of an incision in a second vessel to establish flow between the vessels, said apparatus comprising:

a stiffening framework formed of a deformable material which causes the framework to remain in a second configuration after being deformed from a first configuration;

means for attaching said stiffening framework to the vessels to hold the edge surfaces of the incisions in contact while permitting the framework to be shaped to define a flow path between the vessels; and

an oval-shaped a hemostatic medium positioned to contact the outside surfaces of the first and second vessels as the edge surfaces of the incisions are brought into contact.

88. (Previously Presented) An anastomotic apparatus for placing an inside edge surface of an incision in a first vessel in healing contact with an inside edge surface of an incision in a second vessel to establish flow between the vessels, said apparatus comprising:

a single cuff formed of a deformable material which causes the single cuff to remain in a second configuration after being deformed from a first configuration; and

vessel attaching elements extending from said single cuff and adapted to attach to the first and second vessels to hold the edge surfaces of the incisions in contact while permitting the single cuff to be shaped to define a flow path between the vessels; and

bridging members interconnecting first and second portions of said single cuff, said bridging members adapted to be manipulated to draw said first and second portions together to draw the edge

surfaces of the incisions into contact.

89. (New) An anastomotic apparatus for placing an inside edge surface of an incision in a first vessel in healing contact with an inside edge surface of an incision in a second vessel to establish flow between the vessels, said apparatus comprising:

a sinuous, stiffening framework having a plurality of malleable sections formed of a deformable material which causes the framework to remain in a second configuration after being deformed from a first configuration, wherein said framework defines an oval-shaped opening when in said first configuration; and

means for attaching said stiffening framework to the vessels to hold the edge surfaces of the incisions in contact while permitting the framework to be shaped to define a flow path between the vessels.